

# *How Cows Improve Our Grasslands*

by: Trish Donovan  
Bill Lombardi  
Zana Snell  
Ruth Ann Carlson

**Grade Level:** 4,5,6

**Subject(s):** Science, Art

**Duration:** 45 minutes

**Description:** To make the student aware of the efficiency of a grazing animal.

**Goals:**

1. Students will gain an appreciation of grazing animals and their contribution to the improvement of grazing lands.
2. Students will be introduced to cattle.

**Objectives:**

1. Students will design their own harvesting machine that will be self-propelled with replenishing fuel supplies and will till, seed, and fertilize.
2. The students will gain an understanding of the importance of grazing animals including Cattle.

**Materials:**

1. Paper
2. Pencil, markers or colored pencils

**Vocabulary:**

1. Till: To cultivate or plow
2. Fertilize: material added to the soil to aid the growth and development of plants
3. Seed: to place seed on or in the soil for the production of plants
4. Harvest: to gather the crop

**Procedure:**

1. Start by going over the vocabulary words so the students understand the next set of instructions.
2. Ask students to draw a picture of machine that harvests, tills, fertilizes, and seeds.
3. When students finish their picture continue the lesson by having them share their picture.
4. Show a picture of a cow and discuss why the cow is such an efficient machine. Answer: The cow harvests the grass, tills the soil and drills the seeds into the soil with its hooves, and adds fertilizer in the process. The cow can move under its own power and gets the fuel it needs from the grass it eats. Provide water and you have the perfect harvesting machine if managed properly. This means the cow can not stay in one pasture too long or overgrazing becomes a problem which eliminates all the advantages of using the cow to improve the rangeland.
5. Ask students to come up with other animals that can do the same process. Example: sheep, deer, elk, antelope
6. After this discussion make the connection back to the buffalo. Buffalo kept the grasslands in good condition as they traveled through an area in large numbers.

**Assessment:**

1. Pictures may be graded on originality, neatness, and presentation.
2. Through discussion the student will show understanding of the benefits of the cow on our rangelands.